

# Manure Broker Permit Application Submittal Requirements

1. A *manure handling and transporting* plan that details the methods and standard operating procedures for the manure clean-out, pick-up, transport, disposal, drop-off, storage, etc. that will be involved in this operation.
  - ▶ Should the wastes be stockpiled more than three (3) days, the litter must be stored on a concrete pad and/or other acceptable means covered with black plastic to prevent fly breeding. A four (4) inch diameter hole should be cut in the plastic at the top of the pile and vented with screen wire to let the gases escape. Soil should cover the edges of the plastic to secure it down.
  - ▶ Use all sanitary precautions in the collection, storage, transportation, and spreading of waste. The body of all vehicles transporting waste shall be wholly enclosed, or shall at all times, while in transit, be kept covered with a canvas cover provided with eyelets and rope tie-downs, or any other approved method which will prevent blowing or spillage of loose material or liquids. Should any spillage occur during the transportation of the waste, the owner/operator will take immediate steps to clean up the waste.
  - ▶ A signed contract between the permit applicant and the landowner detailing the liability for the land application must be obtained. Each contract should include the name, address, and telephone number of the individuals that will accept the animal waste. The individual accepting the waste is responsible for transporting, handling and spreading the waste in compliance with DHEC regulation 61-43. Sample contract enclosed.
2. The following *Waste Utilization Area Requirements* should be included in the waste management plan and should be included in the contract information package that is distributed to any receiver of animal waste:
  - ▶ Animal waste shall not be applied to land that is saturated from recent precipitation, flooded, frozen, or snow-covered. Animal waste shall not be applied during inclement weather.
  - ▶ Animal waste must not be placed directly in or allowed to come into contact with groundwater.
  - ▶ The land application equipment, when used more than once per year, should be calibrated at least annually by the farmer; to ensure that proper application rates are being attained.
  - ▶ The amount of animal waste to be land applied should be determined using the animal waste analysis information provided, so that the proper application rate (normally the agronomic rate) is met.
  - ▶ A contractor who supplies animal waste to another person for land application shall provide the person who will land apply the waste with the concentration of plant available nitrogen and the concentration of all other constituents listed in the permit.
  - ▶ Animal waste shall not be applied to or discharged onto land surface when the vertical separation between the waste and the water table is less than 1.5 feet.
  - ▶ Waste utilization area slopes shall not exceed 10 percent unless approved by the Department. The Department may require that slopes be less than 10% based on site conditions.
  - ▶ Follow these procedures when land applying waste:
    - (a) Wastes must not be applied within 100 feet of waterways, streams, lakes, springs, or ponds unless the method of application is:

Spray irrigation	100 feet
Incorporation	75 feet (within 24hrs, reduced to 50 feet)
Injection	50 feet
    - (b) Waste should not be spread in the floodplain if there is danger of a major runoff event. If waste is spread in the floodplain when there is no danger of major runoff event, waste must be incorporated immediately.
    - (c) Use lower rates of application on shallow soils over bedrock to reduce possible pollution of groundwater.

- (d) On slopes over 300 feet long in cropland, install terraces or surface drains to trap sediment and increase flow time to outlet.
  - (e) Waste must not be spread within 100 feet of any potable wells (excluding the applicant's well).
  - (f) Waste must not be spread within 50 feet of ditches and swales that discharge to the waters of the state, including ephemeral and intermittent streams.
  - (g) No person shall apply animal waste to land if any of the following cumulative loading rates have been reached:
 

Arsenic	37 lbs/acre
Copper	1339 lbs/acre
Zinc	2499 lbs/acre
  - (h) No person shall apply animal waste to land during a 365 day period once the following annual application rates have been reached during that period:
 

Arsenic	1.8 lbs/acre
Copper	67 lbs/acre
Zinc	125 lbs/acre
  - (i) Waste must not be spread within 200 feet of a property line, if there is an inhabited dwelling within 1000 feet. Waste may be spread up to 100 feet from the property line with written approval from the adjacent property owner. If there is no residence within 1000 feet, waste may be spread up to the property line.
- ▶ Apply waste (solid or liquid) only when weather and soil conditions are favorable and when prevailing winds are blowing away from nearby opposite dwellings. Any waste that contains fly larvae and fly pupae must be disked into the ground immediately or be treated with an approved and effective fly control method. If the waste disposal on a land application area creates a fly problem for the community, the owner and or applicator will be responsible for the control of all flies resulting from the application of the waste. Assistance in fly control and fly problem prevention can be obtained through contact with the local Clemson Extension Service Office.
  - ▶ Allow a minimum of 4-week recovery period between applications. Sufficient land must be available to rotate applications to utilize nutrients in waste for crop productions.
  - ▶ Waste should not be applied to cropland more than 30 days before planting or during dormant periods for perennial species.

\_\_\_\_\_ 3. *Animal Waste Analysis Information* (as appropriate) shall be obtained from each producer and provided to any person who receives animal waste as follows:

- ▶ Dry animal waste shall be analyzed for:
  - (a) Nutrients (on a dry weight basis).
    - (1) Total Kjeldahl Nitrogen (mg/kg).
    - (2) Total inorganic nitrogen (mg/kg).
    - (3) Total ammonia nitrogen (mg/kg) and Total nitrate , nitrogen (mg/kg).
    - (4)  $P_2O_5$  (mg/kg).
    - (5)  $K_2O$  (mg/kg).
    - (6) Calcium Carbonate equivalency (if animal waste is alkaline stabilized).
  - (b) Constituents (on a dry weight basis).
    - (1) Arsenic (mg/kg).
    - (2) Copper (mg/kg).
    - (3) Zinc (mg/kg).

\_\_\_\_\_ 4. *Soil Monitoring Information.* Soil monitoring information shall be obtained for all waste utilization areas and shall include the following information:

- ▶ The results of the most recent soil sampling (in the root zone) event for each field. Each field should be sampled prior to waste application and the analysis results should be provided to the broker at the time of sale.
- ▶ This information should be provided on the contract or an analysis result sheet can be attached to the contract.

- \_\_\_\_\_ 5. *Waste utilization area* information shall be included for any land application contract. The following information should be shown on a soils map, topographic map, county map, plat, FSA map, OR a site plan sketch:
- ▶ Location of waste utilization area(s) with roads and highways clearly labeled.
  - ▶ Manure application areas with setback or buffers areas outlined.
  - ▶ Location of all known water supply wells within 100 feet of the property lines.
  - ▶ Location of adjacent surface waters, including ditches, streams, creeks, and ponds.
- \_\_\_\_\_ 6. The following *Records* should be kept for eight years at a specified location and made available to the Department for review upon request:
- ▶ Contracts and any attached analyses, location maps or other information.
  - ▶ Waste analysis reports.
  - ▶ Documents identifying the name and address of each farm which animal waste is purchased.
- \_\_\_\_\_ 7. The information should be *reported* to the Department on an annual basis:
- ▶ A balance sheet listing all the farms that animal waste was purchased from and the amount purchased at each farm. The second part should list all the farms that purchased animal waste and the amount purchased. A sample balance sheet will be provided.
- \_\_\_\_\_ 8. Application and annual operating fees must be paid.